Remarks/Arguments:

Claims 1, 2 and 4-35 are pending in the application. Claims 21-35 are withdrawn from consideration. Claims 1, 2 and 4-20 are rejected. No claims have been amended.

On page 2, the Official Action rejects claims 1, 5 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Miki (US 5,181,246) in view of Moriyama (US 6,571,090) and further in view of Shunichi (JP 10-327130). It is respectfully submitted, however, that the claims are patentable over the art of record for the reasons set forth below.

Applicants' invention, as recited by claim 1, include features which are neither disclosed nor suggested by the art of record, namely:

> **... wherein the transmission device is configured to transmit the data repeatedly without changing the transmission communication method during a time period in which a receiving device is configured to switch through a plurality of reception communication methods, each of the plurality of reception communication methods formed by combining one of a plurality of demodulation methods and one of the plurality of carrier frequencies.**

Claim 1 relates to a transmitter and receiver that utilize various modulation/demodulation methods and carrier frequencies. Specifically, the transmitter repeatedly transmits data without changing the transmission method (the transmitter maintains the same modulation method and carrier frequency). During this time period, the receiving device switches through a plurality of reception methods (switches through a plurality of demodulation methods and a plurality of carrier frequencies). Support for this feature is at least shown in Fig. 1 and described on pages 22-24 of the specification.

On page 3, the Official Action states that Moriyama suggests the above recited feature of Applicant's claim 1. Specifically, the Examiner cites Figs. 1, 2 and 4 and furthermore, cols. 9, 10 and 12 of Moriyama. Applicants, however, respectfully

disagree with the Examiner's interpretation of Moriyama. Moriyama teaches a diversity reception device with multiple antennas. For example, as shown in Moriyama's Fig. 1, a branch selecting section and sampling section sample instantaneous values of wave forms received on antennas 10-1 through 10-N. This feature is at least supported in col. 9, line 60 to col. 11, line 5 ("*branch selecting section 11, accepts the plurality of N reception waves respectively ... therefore the branch selecting section according to the switching diversity scheme is reliably performed independent on modulation scheme applied as long as the symbol position is reliably given*").

In Moriyama's first embodiment shown in Fig. 2, a receiver having two antennas (91-1 and 91-2) and a demodulating part 31 are shown. Specifically, demodulating part 31 demodulates both the signals received from antennas 91-1 and 91-2, respectively. Moriyama, however, does not suggest transmitting data repeatedly during which the demodulation method and subcarriers frequencies form various reception methods. The demodulating part 31 in Moriyama's Fig. 2 has a fixed demodulation method which demodulates the signals received from both the antennas (demodulating part 31 does not switch through a plurality of demodulation methods). Also, the first frequency and the second frequencies recited in Moriyama's col. 9, lines 66 to col. 10, line 52 are frequencies for performing branch selection and sampling (these frequencies are not a plurality of subcarriers for performing demodulation). Furthermore, in Fig. 3, Moriyama suggests only a single carrier frequency. Although Moriyama suggests multiple reception branches with multiple antennas, Moriyama only suggests a single carrier frequency and a single demodulation method (the data is not repeatedly transmitted without changing transmission methods and a receiver does not switch through a plurality of demodulation methods and a plurality of carrier frequencies).

Applicants' claim 1 is different than the art of record because the transmitter repeatedly transmits data utilizing the same transmission method while the receiver switches through a plurality of demodulation methods and a plurality of carrier frequencies ("*... wherein the transmission device is configured to transmit the data repeatedly without changing the transmission communication method during a time period in which a receiving device is configured to switch through a plurality of*

reception communication methods, each of the plurality of reception communication methods formed by combining one of a plurality of demodulation methods and one of the plurality of carrier frequencies.").

Shown in Applicants' Fig. 1, transmission device 100 comprises a plurality of modulators 20-24 and a plurality of carrier frequencies 10-13. Similarly, reception device 101 comprises a plurality of demodulators 50 and a plurality of carrier frequencies 40-43. During operation, transmission device 100 selects a single modulation method and a single carrier frequency. The data is then repeatedly transmitted utilizing the selected modulation method and the selected carrier frequency. The reception device 101 then cycles through the reception methods by switching between a plurality of demodulation methods and a plurality of carrier frequencies. Switching through a plurality of demodulation methods and carrier frequencies allows reception device 101 to correctly demodulate the transmitted data. This feature is at least supported on pages 23-24 of Applicants' specification (*"reception device 101 receives data by switching method switchers 33 and 34 timewise and transmission device 100 keeps transmitting the same data repeatedly without switching method switchers 30-32"*).

For example, as shown in Applicants' Fig. 1, transmitter 100 may select a modulator 20 and radio transmitter 10 (the transmitter selects a modulation method and a carrier frequency). The data entering terminal 110 is then transmitted repeatedly utilizing the selected modulation method and selected carrier frequency. When the signal is received, reception device 101 switches through radio receivers 40, 41, 42 and 43 (the receiver switches through a plurality of carrier frequencies). Receiver 101 also switches through various demodulation methods inside demodulator 50. Thus, when reception device 101 selects the demodulation method and carrier frequency which correspond to the modulation method and carrier frequency used by transmission device 100, the data is properly demodulated.

Neither Moriyama, Miki, Shunichi nor their combinations suggests the features in Applicants' claim 1. Thus, claim 1 is patentable over the art of record for the reasons set forth above.

On page 6, the Official Action rejects claims 2 and 12 under a combination of Moriyama, Miki, Shunichi and Granstrom (US 2005/0215206). Neither Moriyama, Miki, Shunichi, Granstrom nor their combination suggest the features in Applicants' claim 1. Thus, claims 2 and 12 are patentable over the art of record in view of claim 1.

On page 7, the Official Action rejects claims 4, 6-10 and 13-20 under a combination of Moriyama, Miki, Shunichi and Moon (US 7,027,782). Neither Moriyama, Miki, Shunichi, Moon nor their combination suggests the features in Applicants' claim 1. Thus, claims 4, 6-10 and 13-20 are also patentable over the art of record in view of claim 1.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

Lawrence E. Ashery, Reg. No. 34,515
Attorney for Applicant

RAE/fp

Dated: September 1, 2009

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

DMW/459855